AUTHOR INDEX, VOLUME 123

Abuhteba, Ramadan, M. 404
Andersen, Mark C. 193
Anderson, V. J. 152

Barrett, Gary W. 348
Bartley, Christopher 399
Benner, B. 179
Berrang, P. C. 292
Bertin, Robert I. 179
Beset, Louis B. 84
Booth, Gary M. 84
Breininger, D. R. 64
Briske, D. D. 152
Brooks, Bonnie L. 75
Brown, A. V. 135

Cepeda-Pizarro, Jorge G. 319
Cleary, D. L. 47
Coffin, D. P. 226
Cordes, James E. 404

Daubenmire, Rexford 331
Day, T. A. 171
Detling, J. K. 171

Elrod, D. A. 383
Epstein, Marc E. 209

Fisher, D. C. 47
Fisher, William L. 268
Fitzpatrick, J. R., Jr. 259

Gecy, J. Leslie 282
Getz, Lowell L. 365
Gillespie, Rosemary G. 236
Gustafson, Eric J. 186

Hartgerink, A. P. 179
Hartnett, David C. 100
Heidt, G. A. 383
Heinen, Joel T. 202

Jackson, D. C. 135
Johnson, J. B. 124
Jones, Robert H. 160

Kaczor, Sue A. 100
Kaiser, B. W. 112
Kangas, Patrick 399
Kapp, R. O. 47
Kulman, Herbert M. 209

Lauenroth, W. K. 226
Lee, T. D. 179
Lorenz, Gregory C. 348

Mahoney, Diane L. 244
McCaffrey, J. P. 124
McCoy, E. D. 112
McIntosh, Robert P. 1
McPherson, Guy R. 144
Mech, L. David 207
Miller, Rudolph J. 32
Michaels, Helen J. 179
Mort, Mona A. 244
Mundahl, Neal D. 40

Nelson, Michael E. 207

O'Dowd, Dennis J. 408

Pizzuto, Theresa M. 365

Rice, S. 179
Ritke, Mark E. 390

Sakai, Ann K. 309
Schmalzer, P. A. 64
Schram, M. D. 135
Segal, Debra S. 160
Sharik, Terry L. 202
Sharitz, Rebecca R. 160
Sikes, Robert S. 383
Slade, Norman A. 373
Snyder, G. G. 47
Solomon, Nancy G. 365
Steiner, K. C. 292
Swihart, Robert K. 372

Taylor, Barbara E. 244
Taylor, Christopher M. 32
Temple, Stanley A. 75
Traveset, Anna 402

VanDruff, Larry W. 186

Wainscott, V. Jean 399
Walker, James M. 404
Wheeler, G. S. 124
Whisenant, Steven G. 301
Whitford, Walter G. 319
Whitmore, Robert C. 84
Willson, Mary F. 179, 408
Wilson, Mark V. 282
Wood, David M. 193
Wright, Henry A. 144

Young, Paul J. 357

AUTHOR INDEX, VOLUME 123

Abuhteba, Ramadan, M. 404
Andersen, Mark C. 193
Anderson, V. J. 152

Barrett, Gary W. 348
Bartley, Christopher 399
Benner, B. 179
Berrang, P. C. 292
Bertin, Robert I. 179
Beset, Louis B. 84
Booth, Gary M. 84
Breininger, D. R. 64
Briske, D. D. 152
Brooks, Bonnie L. 75
Brown, A. V. 135

Cepeda-Pizarro, Jorge G. 319
Cleary, D. L. 47
Coffin, D. P. 226
Cordes, James E. 404

Daubenmire, Rexford 331
Day, T. A. 171
Detling, J. K. 171

Elrod, D. A. 383
Epstein, Marc E. 209

Fisher, D. C. 47
Fisher, William L. 268
Fitzpatrick, J. R., Jr. 259

Gecy, J. Leslie 282
Getz, Lowell L. 365
Gillespie, Rosemary G. 236
Gustafson, Eric J. 186

Hartgerink, A. P. 179
Hartnett, David C. 100
Heidt, G. A. 383
Heinen, Joel T. 202

Jackson, D. C. 135
Johnson, J. B. 124
Jones, Robert H. 160

Kaczor, Sue A. 100
Kaiser, B. W. 112
Kangas, Patrick 399
Kapp, R. O. 47
Kulman, Herbert M. 209

Lauenroth, W. K. 226
Lee, T. D. 179
Lorenz, Gregory C. 348

Mahoney, Diane L. 244
McCaffrey, J. P. 124
McCoy, E. D. 112
McIntosh, Robert P. 1
McPherson, Guy R. 144
Mech, L. David 207
Miller, Rudolph J. 32
Michaels, Helen J. 179
Mort, Mona A. 244
Mundahl, Neal D. 40

Nelson, Michael E. 207

O'Dowd, Dennis J. 408

Pizzuto, Theresa M. 365

Rice, S. 179
Ritke, Mark E. 390

Sakai, Ann K. 309
Schmalzer, P. A. 64
Schram, M. D. 135
Segal, Debra S. 160
Sharik, Terry L. 202
Sharitz, Rebecca R. 160
Sikes, Robert S. 383
Slade, Norman A. 373
Snyder, G. G. 47
Solomon, Nancy G. 365
Steiner, K. C. 292
Swihart, Robert K. 372

Taylor, Barbara E. 244
Taylor, Christopher M. 32
Temple, Stanley A. 75
Traveset, Anna 402

VanDruff, Larry W. 186

Wainscott, V. Jean 399
Walker, James M. 404
Wheeler, G. S. 124
Whisenant, Steven G. 301
Whitford, Walter G. 319
Whitmore, Robert C. 84
Willson, Mary F. 179, 408
Wilson, Mark V. 282
Wood, David M. 193
Wright, Henry A. 144

Young, Paul J. 357

SUBJECT INDEX, VOLUME 123

Acer rubrum, sexual reproduction 309
Alberta, Canada, hibernacula of Columbian ground squirrels 357
American Midland Naturalist, the life history of a journal 1
Arkansas, drift of zooplankton 135
seasonal diet of nine-banded armadillo 383
Aster ledophyllus, effects of seed predators on colonization 193

Bacteria, effect of muskrat mounds on density ... 399
Behavior, gray squirrel 186
Birds, cornfield use 84
loggerhead shrike habitat 75
Bison bison, effects of urine 171
Bromus japonicus, postfire population dynamics .. 301

Canis lupus, killed by prey 207
Chihuahuan Desert, decomposition of leaf litter 319
Cnemidophorus neomexicanus and *C. sexlineatus*, hybridization 404
Colorado, vegetation on ant nests 226
Costa Rica, lizard as seed disperser 402
Ctenosaura similis, seed disperser 402

Dasypus novemcinctus, diet 383
Dictyna spp., developmental biology 124

Ecology, animal, carabid beetles, habitat and seasonal distribution 209
cornfield use by birds 84
Ctenosaura similis as a seed disperser 402
dispersal of house mouse 348
drift of zooplankton 135
effect of muskrat mounds on microbial density 399
fire effects on ant foraging 112
fire effects on birds 64
hibernacula of Columbian ground squirrel 257
life history and ecology of orangefin darter 268
loggerhead shrike habitat 75
seasonal diet of nine-banded armadillo 383
small mammal community succession 372
snake predation on prairie vole 365
variation in litter size of raccoon 390
vegetation on ant nests 226
Ecology, plant, cattle grazing and juniper cover effects on herbs 144
decomposition of litter in desert 319
establishment of vegetation on volcano 282
fire effects in oak/palmetto 64
intraspecific variation in seed packaging 179
mammalian browsing on trees 202
nutrient release from litter 160
pitch pine adaptation to temperature 292
postfire population dynamics of *Bromus japonicus* 301
red maple sexual reproduction 309
Etheostoma bellum, life history and ecology 268
Evolution, intraspecific variation in seed packaging 179

Fish, heat death 40
orangefin darter ecology 268
reproduction and population of plains minnow 32
Florida, effects of gopher tortoise in sandhills ... 100
fire effects on ant foraging 112
fire in oak/palmetto 64
Magnolia-Quercus forest 331

Gopherus polyphemus, effects on soils and vegetation 100

Hawaii, brood care in happy face spider 236
Hybognathis placitus, reproduction and population 32

Idaho, developmental biology of *Dictyna* 124
Illinois, cornfield use by birds 84
variation in seed packaging 179
Insects, fire effects on ant foraging 112
habitat and seasonal distribution of carabid beetles 209
vegetation on ant nests 226
Invertebrates, (other than insects), brood care in happy face spider 236
developmental biology of *Dictyna* 124
drift of zooplankton 135
mites on wild plum 408
Iowa, cornfield use by birds 84

Juniperus pinchotii, effects on herb cover 144

Kansas, small mammal succession 372
Kentucky, life history and ecology of orangefin darter 268

Landscape ecology, influence of landscape corridors on house mouse 348
Lanius ludovicianus, habitat availability 75
Limnology, species richness of copepods in temporary ponds 244
zooplankton drift in stream 135

Magnolia grandifolia, forest in Florida 331
Mammut americanum, fossil in Michigan 47
Michigan, mammalian browsing on trees 202
red maple sexual reproduction 309
vegetation and climatic history 47
Microtus ochrogaster, predation by snakes 365
Minnesota, carabid beetles 209
loggerhead shrike habitat 75
wolf killed by prey 207
Mus musculus, dispersal 348

New Mexico, decomposition of litter in desert ... 320
hybridization in *Cnemidophorus* 405
New York, behavior of gray and black morphs of gray squirrel 186
Nutrient cycling, release from forest litter 160

Ohio, dispersal of house mouse 348
heat death of fish 40
Oklahoma, reproduction and population of the plains minnow 32
Ondatra zibethicus, effect of mounds on microbial density 399
Oregon, establishment of vegetation on volcano .. 282

Paleoecology, vegetation and climatic history 47
Parasites, mites on wild plum 408
Pennsylvania, pitch pine adaptation to temperature 292
Physiology, animal, heat death of fish 40
Physiology, plant, grass leaf water relations 171
stomatal effects on conductance 152
Phytoptus emarginatae, effect on wild plum 408
Pinus rigida, adaptation to temperature 293
Pogonomyrex badius, fire effects on foraging 112
Pogonomyrex occidentalis, vegetation on nests 226
Population, plains minnow 32
Predation, seed predators effect on colonization of aster 193
snake on prairie vole 365
wolf killed by prey 207
Procambarus vioscai paynei, new subspecies 259
Procyon lotor, variation in litter size 390
Prunus americana, relation to leaf-galling by mites 408

Quercus virginiana, forest in Florida 331

Reproduction, brood care in happy face spider... 236
litter size variation in raccoon 390
plains minnow 32
Reptiles, gopher tortoise in Florida sandhills 100
hybridization in *Cnemidophorus* 404
lizard as seed disperser 402

Sciurus carolinensis, behavior of gray and black morphs 186
South Carolina, nutrient release from litter 160
species richness of copepods in temporary ponds 244
South Dakota, bison urine effects on grass leaf water relations 171
postfire population dynamics of *Bromus japonicus* 301
Spermophilus columbianus, hibernacula 357
Streams, drift of zooplankton 135
establishment of riparian vegetation 282

Texas, cattle grazing and juniper, effects on herbs 144
stomatal effects on conductance 152
Theridon grallator, brood care 236

Volcano, dispersal of aster on Mt. St. Helens ... 193
establishment of vegetation 282

Washington, colonization of *Aster ledophyllus* 193

Zooplankton, species richness of copepods 244

CONTENTS

No. 1 January 1990

The American Midland Naturalist: The Life History of a Journal ..... Robert P. McIntosh 1
Reproductive Ecology and Population Structure of the Plains Minnow, Hybognathus placitus (Pisces: Cyprinidae), in Central Oklahoma ..... Christopher M. Taylor and Rudolph J. Miller 32
Heat Death of Fish in Shrinking Stream Pools ..... Neal D. Mundahl 40
Vegetational and Climatic History of the Crystal Lake Area and the Eldridge Mastodont Site, Montcalm County, Michigan .... R. O. Kapp, D. L. Cleary, G. G. Snyder and D. C. Fisher 47
Effects of Fire and Disturbance on Plants and Birds in a Florida Oak/Palmetto Scrub Community ..... D. R. Breininger and P. A. Schmalzer 64
Habitat Availability and Suitability for Loggerhead Shrikes in the Upper Midwest ..... Bonnie L. Brooks and Stanley A. Temple 75
Use of Cornfields by Birds during the Breeding Season: The Importance of Edge Habitat ..... Louis B. Best, Robert C. Whitmore and Gary M. Booth 84
Gopher Tortoise (Gopherus polyphemus) Effects on Soils and Vegetation in a Florida Sandhill Community ..... Sue A. Kaczor and David C. Hartnett 100
Changes in Foraging Activity of the Southern Harvester Ant Pogonomyrmex badius (Latreille) in Response to Fire ..... E. D. McCoy and B. W. Kaiser 112
Developmental Biology of Dictyna Spp. (Araneae: Dictynidae) in the Laboratory and Field ..... G. S. Wheeler, J. P. McCaffrey and J. B. Johnson 124
Diel and Seasonal Drift of Zooplankton in a Headwater Stream ..... M. D. Schram, A. V. Brown and D. C. Jackson 135
Effects of Cattle Grazing and Juniperus pinchotii Canopy Cover on Herb Cover and Production in Western Texas ..... Guy R. McPherson and Henry A. Wright 144
Stomatal Distribution, Density and Conductance of Three Perennial Grasses Native to the Southern True Prairie of Texas ..... V. J. Anderson and D. D. Briske 152
Release of NH_4-N, NO_3-N and PO_4-P from Litter in Two Bottomland Hardwood Forests ..... Debra S. Segal, Robert H. Jones and Rebecca R. Sharitz 160
Changes in Grass Leaf Water Relations Following Bison Urine Deposition ..... T. A. Day and J. K. Detling 171
Intraspecific Variation in Seed Packaging ..... Mary F. Willson, Helen J. Michaels, Robert I. Bertin, B. Benner, S. Rice, T. D. Lee and A. P. Hartgerink 179
Behavior of Black and Gray Morphs of Sciurus carolinensis in an Urban Environment ..... Eric J. Gustafson and Larry W. VanDruff 186
The Effect of Predispersal Seed Predators on Colonization of Aster ledophyllus on Mount St. Helens, Washington ..... David M. Wood and Mark C. Andersen 193

Notes and Discussion

The Influence of Mammalian Browsing on Tree Growth and Mortality in the Pigeon River State Forest, Michigan ..... Joel T. Heinen and Terry L. Sharik 202
Evidence of Prey-caused Mortality in Three Wolves .. L. David Mech and Michael E. Nelson 207

CONTENTS

No. 2 April 1990

Habitat Distribution and Seasonal Occurrence of Carabid Beetles in East-central Minnesota ..... Marc E. Epstein and Herbert M. Kulman 209
Vegetation Associated with Nest Sites of Western Harvester Ants (Pogonomyrex occidentalis Cresson) in a Semiarid Grassland ..... D. P. Coffin and W. K. Lauenroth 226
Costs and Benefits of Brood Care in the Hawaiian Happy Face Spider Theridion grallator (Araneae, Theridiidae) ..... Rosemary G. Gillespie 236
Species Richness of Calanoid Copepods, Cladocerans and Other Brachiopods in Carolina Bay Temporary Ponds ..... Diane L. Mahoney, Mona A. Mort and Barbara E. Taylor 244

Procambarus (Pennides) vioscai paynei, a New Subspecies of Crawfish from East of the Mississippi River (Decapoda, Cambaridae) . . . . . J. F. Fitzpatrick, Jr. 259
Life History and Ecology of the Orangefin Darter Etheostoma bellum (Pisces: Percidae) . . . . . William L. Fisher 268
Initial Establishment of Riparian Vegetation after Disturbance by Debris Flows in Oregon . . . . . J. Leslie Gecy and Mark V. Wilson 282
Microgeographic Adaptation to Temperature in Pitch Pine Progenies . . . . . K. C. Steiner and P. C. Berrang 292
Postfire Population Dynamics of Bromus japonicus . . . . . Steven G. Whisenant 301
Sexual Reproduction of Red Maple (Acer rubrum) in Northern Lower Michigan . Ann K. Sakai 309
Decomposition Patterns of Surface Leaf Litter of Six Plant Species Along a Chihuahuan Desert Watershed . . . . . Jorge G. Cepeda-Pizarro and Walter G. Whitford 319
The Magnolia grandiflora–Quercus virginiana Forest of Florida . . . . . Rexford Daubenmire 331
Influence of Simulated Landscape Corridors on House Mouse (Mus musculus) Dispersal . . . . . Gregory C. Lorenz and Gary W. Barrett 348
Structure, Location and Availability of Hibernacula of Columbian Ground Squirrels (Spermophilus columbianus) . . . . . Paul J. Young 357
The Effects of Predation of Snakes on Social Organization of the Prairie Vole, Microtus ochrogaster . . . . . Lowell L. Getz, Nancy G. Solomon and Theresa M. Pizzuto 365
Long-term Dynamics of an Early Successional Small Mammal Community . . . . . Robert K. Swihart and Norman A. Slade 372
Seasonal Diets of the Nine-banded Armadillo (Dasypus novemcinctus) in a Northern Part of Its Range . . . . . Robert S. Sikes, G. A. Heidt and D. A. Elrod 383
Quantitative Assessment of Variation in Litter Size of the Raccoon Procyon lotor . Mark E. Ritke 390

Notes and Discussion

Effect of Muskrat Mounds on Microbial Density on Plant Litter . . . . . V. Jean Wainscott, Christopher Bartley and Patrick Kangas 399
Ctenosaura similis Gray (Iguanidae) as a Seed Disperser in a Central American Deciduous Forest . . . . . Anna Traveset 402
Hybridization Between All-female Cnemidophorus neomexicanus and Gonochoristic C. sexlineatus (Sauria: Teiidae) . . . . . James M. Walker, James E. Cordes and Ramadan M. Abuhteba 404
The Relationship of Leaf Size and Shoot Length in Prunus americana to Leaf-galling by Mites . . . . . Mary F. Willson and Dennis J. O'Dowd 408

Author Index, Volume 23 414
Subject Index, Volume 23 415
Contents, Volume 23 i